In the United States Patent and Trademark Office

Date: February 2, 2001

In re Application of: S. Allison et al   *Filed:*   04/28/1998

For: Network Wake-up Pattern Matching

Serial Number: 09/067,599

Art Unit: 2777   *Examiner:*   S. Channavajjala

DECLARATIONS TRAVERSING GROUNDS OF REJECTION UNDER 37 CFR 1.132

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Pursuant to 37 CFR 1.132, Samuel S. Allison, Declarant, sayeth:

1.   I am a co-inventor of the Invention disclosed and claimed in the above identified patent application.

2.   I have BSEE and MSCpE (computer engineering) degrees from West Virginia University and North Carolina State, respectively.

3.   I am currently employed by IBM. I have been working in the Computer Industry since 1988 and in ASIC design since 1994.

4.   I have read U.S. Patent 5,742,833 (Dea et al.) and as I understand, Dea teaches a method of doing pattern matching with data arriving from the network. Dea specifies a storage element (Figure 6) that is referred to as Frame Data. A 64 byte portion of this is referred to as the Frame Data Mask. This implies that the

'Frame Data' element contains only data to be compared in the 'Frame Data
Mask' field (see Col. 8, line 67 - Col. 9, lines 1-5). Dea implies through the
description that a direct comparison of all 64 bytes of the pattern (what he calls
Frame Data Mask) is to be done against the arrived data. In summary, Dea
does not disclose a Mask, as is disclosed in my invention, that is used to identify
portions of the stored pattern to be compared with data from the network or visa
versa.

5.   In my invention data (Pattern) is stored in Pattern RAM (Figure 8). The Mask,
        data separate from the actual comparison pattern, is stored in Mask RAM (Figure
        9). The mask is used to identify which bytes in the pattern to be used to
        compare against network data.

6.   When my invention is contrasted with Dea the key distinction is use of the term
        Mask. In my invention Mask refers to data separate from the actual comparison
        pattern. My Mask is used to identify which bytes in the pattern to be used to
        compare against network data (Figs. 8 and 9, pages 6, 7 and 8, my
        Specification). In contrast, Dea does not disclose or teach a separate field of
        mask data which identifies bytes in the pattern. Instead Dea teaches a direct
        comparison of all 64 bytes of the pattern (what Dea calls Frame Data Mask) to
        be compared against network data.

7.   My invention provides selectivity and granularity through the use of the Mask.
        Only selected bytes in a pattern need to be compared with network data. This
        selectivity leads to needing less storage space for patterns, as portions of
        patterns may be selected for comparison, rather than the entire pattern. Less
        storage space reduces the size of the logic, therefore lowering the cost of the
        device.

Dea does not disclose or teach the selectivity or granularity disclosed and claimed in my application.

8. Another novel feature of my invention is the method for generating addresses to access the Pattern RAM and/or Mask RAM. The addressing scheme is shown in Figures 5A, 5B and described at pages 14, 15 and 16 of my specification. The method uses the state of the Data Match State Machine (DMSM) concatenated with the index count to select the proper pattern word for comparison while the DMSM state is used to select the correct bits of the data Mask and the index count is used to select the correct data Mask Word.

Dea does not disclose or teach any address generation method.

9. Based upon the above it is my opinion that Dea discloses a different invention from the one disclosed and claimed in my invention.

10. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

_____ 2/2/2001

Samuel S. Allison   Date